

Appl. No. 10/015,455
Amendment dated November 7, 2003
Reply to Office Action of August 7, 2003

Amendments to the Specification:

Please replace paragraph [0015] with the following amended paragraph:

A₁ [0015] Fig. 9 illustrates a rear view of an ~~embodiement~~ embodiment of the present invention as implemented on an amusement-type ride.

Please replace paragraph [0018] with the following amended paragraph:

A₂ [0018] The present invention is designed to enable physically-challenged persons, primarily children, to experience amusement type rides, such as are found in amusement parks or as typically used for coin-operated rides. In addition to allowing physically-challenged or disabled persons to experience a typical amusement ride, the device of the present invention further is designed to stimulate vestibular motion and provide motion therapy benefits or effects, as well as promote self-esteem and feelings of independence for the physically-challenged user. The apparatus can provide the sensation of motion in one or more planes, and about one or more axes of rotation.

Please replace paragraph [0022] with the following amended paragraph:

A₃ [0022] Although the invention is described herein in terms of modifications to the popular Marsupilami amusement device, the invention is applicable to any amusement-type ride device adapted to stimulate vestibular motion and provide motion therapy to physically challenged users. The reference to Marsupilami device herein is solely for convenience and is not a limitation of the invention. Several modifications to the standard Marsupilami ride were required in order to develop the ride as a motion therapy device. These modifications included

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the removal of the existing handholds and repair of the fiberglass and paint in the chest area, removal of the existing coin-activated switch module and counter, and the removal of the coin well and lock. Several holes were drilled into the fiberglass body, as well as the internal steel support frame for the attachment of the support mechanisms of the present invention. Figs. 8-11 illustrate different views of an implementation of the apparatus of the present invention on a ~~medifed~~ modified Marsupilami device. The separate components including headrest support and torso support are described more fully below. Like numerals are used to refer to like parts ~~throughout~~ throughout the description.

Please replace paragraph [0023] with the following amended paragraph:

[0023] Fig. 8 illustrates a perspective view of the inventive apparatus as implemented on the ~~medifed~~ modified Marsupilami device. Fig. 9 illustrates a rear view; Fig. 10 illustrates a front view; and Fig. 11 illustrates a side view of this embodiment of the inventive apparatus as implemented on the ~~medifed~~ modified Marsupilami device.

Please replace paragraph [0026] with the following amended paragraph:

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[0026] In use, the modified Marsupilami device has to be adjusted to fit the child rider. The torso support arms 36 are swung away from the center and the head rest support (Fig. 4, element 44) is slid back before placing the child onto the Marsupilami's lap with the child's legs straddling the fiberglass waist of the ride. The support arms 36 are then swung toward the child and the height of the hand pads 30 are then checked. The pads 30 should support the child underneath the arms, on either side of the rib cage. The pads 30 must be placed l w enough so that the child's arms

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are at a comfortable angle from the shoulder and not sticking straight out from the child's body. To adjust the height, the bolts 43 that attach the shoulder block 42 to the stainless steel uprights 40 are loosened. The arm assembly 36 is then slid up or down on the spine rods 40 to the correct height before retightening the bolts 43. The hand pads 30 are then checked to ensure they are supporting the child evenly and are not tilting forwards or backwards. This exemplary embodiment has three mounting locations for the hands 32 on the arm. A smaller child may need the hands 32 placed closer to the shoulder, whereas a larger child may need the hands 32 placed closer to the nose of the Marsupilami. To adjust the hand mounting locations, the socket head bolt 38 must be removed from the top plates of the hand bracket 32. The hand brackets ~~38~~ 32 are slid forward or backwards until the holes line up, at which time the socket head bolt 38 is reinstalled.

(Please replace paragraph [0027] with the following amended paragraph:)

[0027] The hand pads 30 are then secured around the child's torso by latching the nylon lap belt. The length of the belt needs to be adjusted so that the hand pads 30 fit snugly against ~~he~~ the child and there is an equal gap between the hand pads 30 front and back. The child's back is then checked to ensure that it is not pressing against the shoulder block 42. If the child's back is too close, a fine adjustment to the underside of the arms can be made. The steps of securing the hand pads 30 around the child's torso and checking that the child's back is not pressing against the shoulder block 42 should be done simultaneously to be sure that the hand pads 30 fit comfortably and are equally spaced around the child. This is extremely important since the hand brackets 32 are preventing the child from falling off the Marsupilami ride.

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[Please replace paragraph [0028] with the following amended paragraph:]

Q4 [0028] Figs. 4-5 illustrate a top and rear view, respectively, of the headrest support configuration used in the modified Marsupilami device. The headrest support configuration includes a headrest assembly 44 (pads not shown). Headrest assembly 44 is attached to headrest rod 52 and is horizontally positioned by sliding the headrest assembly 44 and headrest rod 52 back or forth. A clamping knob 50 is used to secure the headrest rod 52 to headblock 48. The headblock 48 can be adjusted vertically on the spine rods 40 to properly set the height of the headrest assembly 44 for the child.

Please replace paragraph [0031] with the following amended paragraph:

Q5 [0031] When the Marsupilami is first plugged in, the lights will start flashing and the music will play periodically. The unit will not run until the circuit has been primed by pressing a button on ~~he~~ the control panel, such as that depicted in Fig. 6. Thereafter, pressing either the button or the head switch will start a run cycle. A safety feature built into the head switch circuit prevents the child from initiating multiple run cycles while the Marsupilami is running. When the head switch is used to start the Marsupilami, a timer relay on the control panel starts counting down and isolates the head switch so that pressing the head switch while the unit is running has no effect. This assumes that the run period and the control panel timer have been set for similar times. The unit is preset to run for two minutes and the head switch timer is set for two minutes and six seconds. At least a six second difference should always be used regardless of the run period.

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[Please replace paragraph [0032] with the following amended paragraph:]

AB [0032] Underneath the fiberglass shell of the Marsupilami is an electronic box that controls the motor function, speaker (on/off switch 64 and volume knob 66), and lights. This electronics box is illustrated in Fig. 6. Turning the time period dial (potentiometer) 62 clockwise increases the run time. There is no readout associated with the dial; therefore, it is necessary to use a watch with a second hand to determine how long the new run period is. Once that time has been determined, the delay period on the control panel is adjusted accordingly. The head switch timer control panel delay is illustrated in Fig. 7. The four touch pads (72, 74, 76, 78) at the bottom of the timer ~~face~~ face 70 are used to adjust the timer. Pressing each of the buttons 72, 74, 76, 78 will scroll the numbers above it 0 - 9. For example, if the Marsupilami is running for four minutes 15 seconds, the control panel timer should be adjusted to at least 4 minutes 21 seconds. This allows for a minimum of 2 seconds to pass from when the Marsupilami stops before it can be turned on again. The remaining 4 seconds are used by the internal electronics as a "get ready" delay from the moment the switch is activated and the Marsupilami starts to move again.

Please replace the "Abstract of the Invention" with the following amended paragraph:

AC An apparatus for providing motion therapy to a physically-challenged child includes an adjustable seat attached to the base of an amusement-type ~~ride-carriage device~~ by a spring mechanism and having a back portion to provide lower back support to the child. An adjustable torso support mechanism is mounted on the amusement-type ~~ride-carriage device~~ and provides

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Al lateral support to the child while seated on the ride. The torso support includes rotatable support arms to which are fastened adjustable hand brackets and hand pads, all mounted on vertically-positioned spine rods. An adjustable headrest support is mounted on the amusement-type carriage device to provide head and neck support to the child. An adjustable shoulder strap secures the child in a stable position during operation. A lap belt is also provided to securely position the child inside the torso support mechanism.